

### 50 years of electrophysiology of vision: ISCERG (1958-1977), ISCEV (1978-2008)



50 Years of ISCERG/ISCEV Presidents: The photo on the left is from the XXII ISCEV Symposium, 1984, Stockholm Sweden and shows together from left to right: Prof Gösta Karpe, Stockholm, our first President (1958-1972), Prof Ragnar Granit, Nobel laureate (1967) and Advisory Board Member (from 1961), Prof J Francoise, Ghent, Vice President (1958-1984) and Prof Sven Erik Nilsson, Linköping, our third President (1984-1991). Behind these you can see Prof Fransçesco Ponte, Palemo, Italy and Prof Lillemor Wachtmeister, Umeå, Sweden. (photo courtesy of SE Nilsson). Prof Harold Henkes, Rotterdam, our second President (1973-1983) is shown in the centre (archive photo). On the right is a photo from a Symposium held in Tübingen, Germany to honour Prof Zrenner's 60th birthday in 2005. Here from left to right are: Prof Nilsson (a more recent rendition), Prof Eberhart Zrenner, Tübingen, our fourth President (1992-1999), Prof Yozo Miyake, Nagoya, our fifth President (2000-2003) and Prof Michael Bach, Freiburg, our President since 2004. (photo courtesy of Colin Barber).

## From the President

First and foremost I thank the ISCEV membership for re-electing me for a second, and final term as President. Indeed, ISCEV has become integral to my life – rarely does a day pass without some ISCEV matter be it small or large: an issue to resolve, a project to move forward, some interesting communication with members. Unexpected for me was the amount of moderating: great minds do not necessarily think alike, nor should they and strong will is needed to pursue our field.

The breadth of activities in ISCEV is amazing: There are the symposia and their preparation, the teaching courses, contributions to conferences (e.g., ISCEV@ARVO, EVER), local chapters (JCEV, BrISCEV), ISCEV Standards & Guidelines, voting procedures, monetary issues, preparation and wrap-up of awards (Dodt, Adachi), travel grants, the leaflet, the journal and arrangements with the publisher, committee appointments, the newsletter (sic), the website, bye-law changes if necessary, preparation and wrap-up of membership and board meetings, etc. I am glad that this is carried on many shoulders. I am deeply thankful to our Secretary General for her dedicated work, and I also thank the entire board and all dedicated members for their work and input. Special thanks this time is time due to Don Hood, who strongly carried the torch as VP Americas, and among other contributions organised four great ISCEV@ARVO gatherings.

Turning to the core goals for ISCEV, we need to recognise that methodologies, which compete with electrophysiology and target the same clinical questions, are sometimes more efficient. The tenuous situation of our niche in clinical electrophysiology of vision recently became apparent in Germany; the two usual electrophysiology courses were dropped from this year's German Ophthalmology Academy. (We have rectified the situation for 2009). Growth is also seen: This year sees the first ISCEV course at the American Academy of Ophthalmology (AAO) meeting, organised by Byron Lam, Mitch Brigell and Mike Marmor. Furthermore, there is an expanding interest in electrophysiological assessment of drug safety. There, specific extended protocols, tighter than our clinical standards are required; an appropriate initiative is underway, spearheaded by Eberhart Zrenner and Mitch Brigell.

A real asset of our society is our journal, Documenta Ophthalmologica, with its recovered impact factor. It has oscillated down a little this year, because citations are to some degree tied to updates of the ISCEV standards. But we now have a flow of manuscript submissions which gives our editor, Laura Frishman, the possibility to go on reigning with a strong hand and further raising the quality of the journal.

Helping to attract young colleagues to our field is an issue dear to my heart. In this spirit we increased the sum paid for the travel grants in 2005 and, at the 2007 Board meeting, we gave the awards committee the discretion to award more than our usual six grants; this year nine young scientists will be supported by an ISCEV travel grant. A further resource for "ISCEV sponsored lab visits" has met with a markedly underwhelming response. Probably because word hasn't go around yet, so I encourage you to utilise this resource (see details on our website, the top entry of the "Misc" section).

I am very much looking forward to our next symposium. It is very special this year, the 50th anniversary of ISCEV – more on this later in this newsletter. So let's re-unite, refresh the ISCEV family spirit, have fun, listen to each other, offer helpful critique and learn. Reach out, stand out, and onward to another 50 years of ISCEV!

## From the Secretary General





The logo for The

VII International Symposium of ISCERG

The VII International Symposium of ISCERG the year after our 10th anniversary, hosted by Prof Basar in Istanbul, Turkey in Sept 1969.

**Happy Birthday ISCEV!** Fifty years of leading the developments in clinical electrophysiology of vision is truly an occasion to celebrate. So why are we celebrating our 50th anniversary at the 46th International Symposium? The quick answer, that we 'missed' a few of the early years, misses the point that these early years were a time of enthusiastic activity. The table outlines some of this early productivity. In fact, our founding members planned to organise an International Symposium only every four years. Success overtook them and the International Symposium became an annual feature, never missing another year after 1968.

### ISCERG Meetings 1958-1964

Date / location	Organiser or Chair	Meeting	Key Activities
10 Sept 1958 at 18 <sup>th</sup> Int'l Congress of Ophthalmology Brussels	HE He nkes (SG)	ISCERG Founders Meeting	<ul> <li>Established the Board, Advisory Board and Committee members</li> <li>Outlined aims and bye-laws</li> </ul>
11 May 1959 Paris	G Karpe (Pres)	First meetings of the ISCERG Board and Committee on Standards	<ul> <li>First bye-laws adopted</li> <li>Newsletter etablished</li> <li>Discussion of the first ERG draft standards</li> </ul>
16 April 1960, 1 <sup>st</sup> European Congress of Ophthalmology, Athens	G Karpe	2 <sup>rd</sup> meetings of the ISCERG Board and Committee	<ul> <li>W Staub's bibliography of the ERG (19651960) approved</li> <li>Standardisation committees formed for ERG electrodes and for procedures</li> </ul>
Auteris		First ISCERG plenary meeting (all Members)	<ul> <li>Plenary Session "The ERG in Secondary Glaucoma".</li> </ul>
01-04 June 1961, Stockholm	G Karpe	First official Symposium of ISCERG (includes Board and Committee meetings)	<ul> <li>Theme "Standardization of the Clinical ERG"</li> <li>Recommendations for single flash ERG were accepted</li> </ul>
6 Dec 1962, at 19 <sup>h</sup> Int'l Congress of Ophthalmology New Deli	G Karpe & Dhana (chair)	ISCERG Board Meeting and Plenary Meeting	<ul> <li>Secretary Far East added to theoard</li> <li>Scientific Plenary meeting details are not available</li> </ul>
1214 Sept 1963, Symposium on the Physiology of Flicker, Rotterdam	HE Henkes & LH van der Tweel	Second ISCERG International Symposium	<ul> <li>Main Theme "Physiology and pathology of the photopic flicker ERG"</li> <li>Published in Documenta Ophthamologica Proceedings.</li> </ul>
June 1964, 2 <sup>nd</sup> European Congress of Ophthalmology, Vienna		ISCERG Plenary Meeting	<ul> <li>Six lectures, details not available</li> <li>(3<sup>rd</sup> international Symposium held in Chicago in October of the same year)</li> </ul>

Although ISCERG originated in Europe, it is truly international with particularly strong activities the USA and in Japan. It was appropriate then that the Third and Forth International Symposia were held in Chicago, USA (1964) and Hakone, Japan (1965). It would be impossible in this brief message to celebrate all of our symposia over 50 years so I decided just to highlight the end of our first two decades: There was no International Symposium in 1968, our 10th year. However, a plenary session entitled, "Electrodiagnostic procedures in drug-induced retinopathies" was organized at the 3rd European Congress of Ophthalmology in Amsterdam. The ISCERG Board also met there and preparations were underway of the 7th International Symposium in Istanbul, Turkey (see photo and logo).

The year 1978 was seminal for our society; it was both the 20th anniversary and the first time that our new ISCEV name and logo graced our publications and banner. The symposium in Morioka, Japan was in the words of our President Prof Henkes, "perfectly organised making our stay both delightful and profitable." Wonderful too that the organiser, Prof Tazawa, selected for the symbol of the symposium the Karyo-Binga, a Buddhist symbol of longevity "with a sincere desire for everlasting friendship between members and that the symposium be held forever".

There is much to celebrate and no doubt our longstanding ISCEV members will see the faces of life-long friends in these photos from our past symposia. My birthday wish is that our lives and our science will be enriched by the friendships forged through ISCEV meetings past, present and future. Science will progress rapidly and ISCEV must evolve to lead the way in understanding the intricacies of visual physiology and in applying this knowledge to clinical problems. That challenge should keep us working for the next 50 years, maybe even forever?

Daphne L McCulloch, OD, PhD Secretary-General, ISCEV



The XVI International Symposium, our 20th anniversary and the first year the ISCEV name was used. Prof Tazawa in Morioka, Japan hosted the symposium.



Symbol of the XVI International ISCEV Symposium, the Karyo-Binga, representing longevity.

# **Report of the Director of Education**

After the dissociation between the ISCEV meeting and Course in France, the association between the ISCEV Course and the main ISCEV meeting resumed last year in Hyderabad. The faculty of Michael Bach, Sandeep Grover, Chris Hogg, Subhadra Jalali, David Keating, Mohan Ram and myself provided a comprehensive Course that was reported by the participants to be interesting and enjoyable and maintained the high standards set in previous years. The local organiser, Subhadra Jalali, and her team provided excellent facilities and hospitality. As always, the contribution of the commercial exhibitors, who provided equipment and support for teaching and demonstration purposes, is gratefully acknowledged.

ISCEV approved Courses were run at Moorfields in March 2008 and in Munich by Thomas Berninger in May 2008. The faculty for the annual Moorfields Course was ISCEV Members Geoffrey Arden, Isabelle Audo, John Heckenlively, Chris Hogg, Graham Holder, Bart Leroy, Magella Neveu, Gunter Niemeyer, Anthony Robson and Dorothy Thompson. ISCEV members on the faculty of the Munich Course in May 2008 included Michael Bach, Thomas Berninger, Dorothea Besch, Chris Hogg, Herbert Jaegle, Thomas Meigen, Anja Palmowski and Hannes Wildberger.

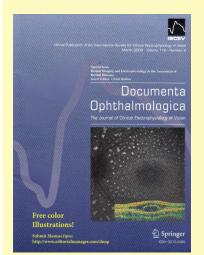
Short Courses took place at the Belgian Ophthalmological Society meeting in Brussels in November 2007 (Holder, Leroy, Werner Spileers) and at Euretina in Vienna in May 2008 (Marko Hawlina, Holder, Leroy). A short Course on paediatric electrophysiology was held at SOE in Vienna in June 2007 with a faculty including Jelka Brecelj, Daphne McCulloch, Dorothy Thompson and Tony Moore).

We are currently looking forward to this years' meeting in Morgantown, where the Course will be presented by Michael Bach, Laura Frishman, Sandeep Grover, Chris Hogg, Graham Holder, Charlotte Poloschek and Dorothy Thompson.

ISCEV Members intending to run "ISCEV Approved" Courses are again reminded that they should forward details of Course content and faculty to the Director of Education for approval. Only then can details be published on the ISCEV website.

> Prof. Graham E Holder Director of Education

# **Editor's Report**



This is the third annual report that I am writing as Editor of the Society's journal, Documenta Ophthalmologica. We are also in the third year of using the webbased "editorial manager", and are now negotiating, with Springer-Verlag GmbH, a new contract for six issues a year, with an additional issue, only online, for the meeting abstracts. The plan is to expand issues from 64 to 80 pages, with the option for even more pages, to

maintain free colour illustrations, and (we hope) open access for all ISCEV Standards, Guidelines and Procedures. (Note: This is an updated heading for the previous article classification of 'Standards' in the Journal). The expert trio of Associate Editors, and composition of the Editorial Board has not changed, but modest changes in the board will be proposed at the upcoming Editorial Board meeting. These changes will mainly adjust the board to include ISCEV members, not currently on the board, who are working hard for the journal. Dr. Scott Brodie continues to do an excellent job as Editor of the Case Reports. Diana Epstein of Di-Ep Biomedical Editorial Services continues to administer the editorial office and to supervise the online submission process. If you have questions about manuscript submission, Diana may be contacted at; Doc-oph@di-ep.com

The journal's impact factor was 1.712 for 2006; the 2007 ratings should be available soon. As stated in the help file for Journal Citation Records (JCR) on the ISI Web of Knowledge site: "The impact factor is calculated by dividing the number of citations in the JCR year (e.g. 2007) by the total number of articles published

in the two previous years (e.g. 2005-6). Given this formula, please do remember to cite the most recent papers in the Standards, Guidelines and Procedures category, as well as the other fine papers in recent issues. Of course, regardless of metrics for assessment, the value to the ISCEV members of Documenta Ophthalmologica remains high because of the relevant papers that it gathers in one place.

Over the past year all papers have been published online as soon as corrected proofs were ready, and all formal issues have been published on time. This timeline for publication of accepted papers benefits the authors, and the readers, and should help our impact factor. A special issue on "Retinal Imaging and Electrophysiology in the Assessment of Retinal Disease", edited by Prof Ulrich Kellner, appeared in March 2008, setting a precedent for publishing papers and special issues that provide a perspective on the relative value of structural and functional testing, as ever improving imaging techniques emerge, and new tests of visual function are developed.

The Journal's submission rate for this year has been about seven papers per month, including six papers for a special issue on drawn from presentations in the ISCEV 2007 symposium on ERG in Drug Development. This represents a decline from last year when the submission rate was about ten papers per month. The journal needs your support! Please contribute to its continuing success by proposing a special issue or a review of an area of interest to readers; case studies, methodological papers/technical notes also are encouraged.

#### The Editorial Manager address;

https://www.editorialmanager.com/doop/, is one that you should consider using when submitting, at least some of your papers for publication.

Laura J. Frishman, PhD Editor-in-Chief, Documenta Ophthalmologica

# **Report of the Director of Standards**

It is with mixed feelings that I step down as ISCEV Director of Standards to assume responsibilities as VP of the Americas. ISCEV Standards represent a valuable contribution to the ophthalmologic and vision research community. In recent years we have succeeded in making our standards more prescriptive. Since last year's newsletter revised standards for the EOG and PERG have been published as well as extensively revised guidelines for the mfERG. I would like to thank Malcolm Brown, Graham Holder and Don Hood for chairing these committees and the membership at large for their sustained high quality input to the ISCEV Standards.

We continue to make progress on development of ISCEV Approved Extended Protocols. ISCEV Protocols are meant to extend the scope of the Standards to cover more specialized procedures such as Infant ERG testing, chiasmal misrouting, Sweep VEP acuity, and intensity-response functions. It is hoped that these Protocols will give guidance to investigators and clinicians who have a need for more specialized procedures. Extended protocols may also be approved to help standardization for multi-center clinical trials or to guide health authorities regarding the appropriate test to perform for a specific disease, pathologic process, or drug safety issue. The process for approval of ISCEV Extended Protocols is still under discussion. A template for submission of a Protocol is currently under revision. Each protocol should be designed around a specific purpose (e.g. assess phototransduction; screen for diffuse rod/cone dysfunction, detection of dysfunction in the nerve fibre layer; identify disorders of the post-chiasmal visual pathway; follow progression of maculopathy). Protocols will be submitted to the Director of Standards and subsequently posted on the ISCEV website for comment. If there is general consensus the protocol will be approved.

These ideas will be discussed further at the Annual Symposium in Morgantown under the guidance of Professor Eberhart Zrenner and myself. If you are unable to attend the symposium, please feel free to contact either of us regarding your views related to ISCEV Approved Extended Protocols.

Finally, I would like to thank the ISCEV membership for your continued vigorous engagement in the standardization process. I have learned a great deal during my tenure as Director of Standards with regard to science and with regard to diplomacy.

Mitchell Brigell, Phd Director of Standards

## Treasurer's Report

The accompanying spreadsheet displays the financial data for 2004 - 2007 and an estimate for 2008. The figures are given in Euro, as all funds except for the US Dollar account are held in Euro. The accounting and tax records must be reported in Euro as well. In total, we made a small loss in 2007. The situation of ISCEV is stable. Membership income varies with the US Dollar - Euro exchange rate. Publication and symposium pre-financing are the major liabilities. The latter depends on the necessities of each organisers local situation. Currently 276 members have paid for 2004, 264 for 2005, 282 for 2006, 285 for 2007 and 231 for 2008. This is not a real

decline in the membership, as some (few) members pay late and I expect about 30-40 further members still to pay for 2008. I have cautiously calculated a small financial deficit for 2008, but it is also possible to nearly break even. Unfortunately I will not be able to attend the meeting in Morgantown.

Please contact me with any questions relating to this report and thank you again for reducing my workload by using the online payment system.

> Ulrich Kellner, MD Treasurer of ISCEV

Treasurers Report (Euro)	2004 closed	2005 closed	2006 closed	2007 closed	2008 estimated
Income	CIOSEU	cioseu	cioseu	cioseu	estimateu
Membership dues Symposium income through treasurers office Bank account interests Publisher editorial payment Symposium return (income & returned pre-financing) Other income	29.227,95 0,00 1.493,39 8.264,17 0,00 0.00	27.138,00 28.638,16 1.102,97 3.975,00 19.128,63 500,00	33.943,97 5.440,89 2.172,38 6.846,85 22.343,00 0,00	28.090,23 0,00 3.252,53 10.829,44 0,00 0.00	0,00 1.800,00
Total Income	38.985,51	80.482,76	70.747,09	42.172,20	42.800,00
Expenditure					
Check handling fees, bank charges Credit card handling fees Internet services Lawyer Accounting Secretary general office Treasurers office Editors office Publishing DOOP Symposium financing Travel grants <b>Total Expenditure</b>	1.468,13 1.347,27 1.135,26 3.297,32 0.00 4.697,91 255,27 4.098,00 27.825,00 44.095,50 2.904,85 <b>91.124,51</b>	532,17 2.558,88 162,58 131,10 1.044,00 4.227,60 540,62 1.062,50 31.561,50 46.302,48 2.457,20 <b>90.580,63</b>	413,83 1.992,41 569,55 139,20 696,00 14.828,00 735,49 0,00 26.999,50 12.776,57 2.893,12 <b>62.043,67</b>		500,00 200,00 850,00 5.000,00 800,00 28.000,00 5.000,00 3.800,00
Balance					
Total Income - Total Expenditure	-52.139,00	-10.097,87	8.703,42	-1.256,67	-3.750,00
Assets (as of 31.12.200x)					_
USD Account EURO Account Deposit	906,73 6.402,89 136.394,27	12.591,99 12.765,81 108.624,58	12.888,32 22.492,33 107.122,08	6.266,13 35.278,37 99.701,48	
Total Assets	143.703,89	133.982,38	142.502,73	141.245,98	137.500,00

## **ISCEV** International Communications

Over the years, the constitution of the ISCEV Board of Directors has been revised several times. Director of International Communications, an official Board position only since 2002, evolved to support the electronic age. Communication is and has been the central mission of ISCEV and our antecedent society, ISCERG, since inception. Both of our main objectives are centred on communication: To promote and extend the knowledge of clinical electrophysiology of vision, and to promote co-operation and communication among workers in the field of clinical and basic electrophysiology of vision.

In 2007, we conducted a short survey that aimed to provide feedback to the organisers of the Morgantown Symposium and to ensure that the ISCEV Board are in tune with the membership. Forty-four members responded to this request providing valuable information. The key findings of the survey are summarised below.

We asked our members to rank ISCEV activities in order of importance. The first choice was ranked as follows. Please note several members ranked more than one category as first.

Clinical Patient Care:	61%
Clinical Research:	41%
Laboratory Research:	25%
Veterinary Practice:	2%

For duration of membership; 71% of respondents had been members for more than 8 Years and 27% for 3-7 years.

Number of ISCEV Symposia attended: respondents were evenly distributed among those who had attended more than 10 symposia (36%), more than 5, (27%) and five or fewer (36%).

Most responding members had also attend the regional symposia

ISCEV @ARVO	57%
BriSCEV	36%
JSCEV	16%
EVER	14%
ISCEV Courses	25%

Symposium Benefits: Interaction with Colleagues, clinical and research update and friendship were the most quoted benefits of attending Symposia and Meetings.

Symposium drawbacks: These figures are important with almost half of the membership feeling that the symposium was expensive. Another common view was that summer was a bad choice of time for the meeting. Main reasons for not attending were: Expense (43%), Time of year (27%) and Travel distance (18%).

Most respondents planned to visit Morgantown (73%)

There are obviously limitations to this survey such as the small sample size that was weighted heavily to those who planned to attend the Morgantown symposium. Nevertheless, the data provided us with useful information; informal feedback from all members is always welcome.

### Journal Access:

Over the years we have had a small number of members who have experienced difficulty with on-line access to our Journal, Documenta Ophthalmologica. Earlier this year, Springer introduced a new system of providing a new individual access token for each member. Initially, we were reluctant to introduce this system but I am pleased to report that it has been most successful with few reports of members having difficulty with the new system.

### 50 Years of International Communications:

The ISCERG Newsletter was launched in 1959, less than a year after the first meeting of our founding members. In the age when everyone depended on printed journals and books for information, there were often long delays in disseminating developments, particularly in specialist fields such as ours. The quarterly Newsletter rapidly became the lifeline of the Society and its first editor Jerry H Jacobson carried out this role until 1973. Our founders also published a bibliography of the ERG covering the period of 1865 to 1960; (this is noted but was not kept in our archive). Early newsletters conveyed not only announcements of meetings and committee reports, but also abstracts of recent or 'in press' studies and as well as case reports. They also included the membership roster and postal addresses to keep members in touch. In the early 1970s, the newsletter began to circulate annual bibliographies, comprehensive lists of papers relevant to our field organised by topic. Alex Krill, ISCERG Secretary for the Western Hemisphere, compiled the first such bibliography in 1972. The following year an aeroplane crash in Chicago cut short the life of this fine ophthalmologist, scientist, jazz musician and father.

The number of abstracts and case reports in newsletters dwindled as full symposium papers were compiled separately in the Documenta Ophthalmologica Proceedings series. Between 1963 and 1983, 16 volumes of the Proceedings were dedicated to ISCERG or ISCEV Symposia (see ISCEV Archive for a full list.) The regular journal Documenta Ophthalmologica (first published in 1939) also enjoyed a close association with our society especially when Prof Harold Henkes was both the journal Editor and the President of ISCEV. In the 1980s this association became formal and Documenta Ophthalmologica has been our official publication since that time.

Colin Barber ushered in modern ISCEV communications in 1990 with the introduction of desktop computing when he began editing the ISCEV newsletter improving the layout, reducing publication costs and enabling Michael Bach to pepper the newsletter with conference reports accompanied by colour photos from 1997.

By then, Michael had placed ISCEV at the forefront of technology with the ISCEV website, founded in 1996 giving us instant access to information and of course the online versions of our Newsletters. In 2001, Scott Brodie opened our online discussion group for clinical electrophysiology of vision, CEVnet, opening up discussions of cases and issues to all.

While our science certainly couldn't proceed without modern rapid communications, we have never lost sight of the human element in communication with growing activities in educational and regional meetings of ISCEV. As we look forward to our 50th Anniversary celebrations in Morgantown, West Virginia, surely it is the personal discussions and friendships that stand out when we think back over the history and forward to the future ISCEV communications.

> David Keating Director of International Communications and Daphne L McCulloch

## **Regional Reports**

### **Americas**

This is an exciting year to assume the role of ISCEV VP of the Americas. We will have the honour of hosting the 43rd annual ISCEV Symposium in Morgantown, West Virginia. Vernon Odom and Monique Leys and their organizing committee have planned what looks to be a memorable event. I hope that many of you will come to Morgantown to get a taste of life in a US college town, see the beauty of West Virginia, and exchange ideas about visual electrophysiology and visual science.

Earlier this year we held the ISCEV@ARVO meeting in Fort Lauderdale. Twenty scientific papers were presented on a wide range of topics. Discussion was lively as usual and the feedback that I received suggests that the meeting was a success. I am considering ways to make the meeting even better in years to come including holding the dinner at a more interesting venue and having a mini-symposium as a part of the agenda. Please let me know if you have any ideas on how to enhance this annual event.

In an effort to increase the knowledge and visibility of clinical electrophysiology in the ophthalmologic community in the United States, Byron Lam has succeed in getting an ISCEV electrophysiology course into the program at the American Academy of Ophthalmology meeting this year in Atlanta. I hope that this will become a successful annual event at the Academy, that it will result in enhanced application of advances in our field to clinical practice and will facilitate the use of electrophysiological techniques in research programs of young clinician-scientists. Plans to have an ISCEV course at the American Academy of Optometry meeting are also underway.

Finally, I would like to thank Don Hood for serving as ISCEV Vice President of the Americas for the past four years. As all of you are aware, Don is an energetic, creative and enthusiastic vision scientist and his active participation in ISCEV has been a benefit to us all. I know that Don will continue to apply his innovative skills to clinical application of electrophysiologic, psychophysical and imaging technologies and hope that he will continue to find ISCEV a good community for sharing and refining his research endeavours.

Mitchell Brigell, PhD Vice-President for the Americas

### **Europe and Africa**

This was another busy year in Europe, particularly in the UK, where BriSCEV held its annual meeting in London during June. Jointly organised by teams from Moorfields Eye Hospital and Great Ormond Street Hospital for Children, the meeting enjoyed the excellent facilities of the Institute for Child Health for a full and interesting programme of three oral sessions and a large poster session. In addition, the organisers took advantage of the wealth of scientific talent associated with this world-famous institution to include three excellent keynote lectures from Professors Tony Moore (Cone Dystrophies), Fred Fitzke (Optical Imaging in the Eye) and Chris Kennard (Illusions, Reality and the Visual Brain). There was also an innovative



"current issues" session, which included a brilliant update on stem cell research from Jane Sowden. Fittingly, the social programme included a ride on the London Eye, and this was followed by a splendid dinner aboard the Hispaniola, a restaurant ship moored on the River Thames. Needless to say, a jolly good time was had by all!



In 2008 the meeting will be held in Cardiff during 15-16 September, and details can be found at http://www.briscev.org.uk/briscev2008.html. With the conference in the splendid facilities in the newly built School of Optometry and Vision Sciences and social events at Cardiff Castle, this is one that is not to be missed! As always, BriSCEV extends a warm welcome to all ISCEV members, wherever they are from.

New this year, an ISCEV paediatric session at the SOE meeting was organised by Dr Jelka Brecelj and Prof Daphne McCulloch) and attended by 30 people, who paid 60 Euro extra to attend this ISCEV course: Applications of Clinical Electrophysiology in Paediatric Practice. It lasted 90 minutes and all 4 talks went well. Prof Marko Hawlina also organised a special session, "Electrophysiology and functional imaging of macular diseases." which was very well attended (~80) especially considering the 08:30 start on the final day of the meeting.

At the beginning of October, as is by now customary, the European Vision and Eye Research society included a joint ISCEV session in its programme, in addition to an instructional course and sessions on electrophysiological topics. Our presence at this very pleasant and friendly meeting grows each year. On this occasion, and for the next 2 years, at its new location in Slovenia, the Local Organiser is ISCEV Board Member, Prof Marko Hawlina. It was a very well run meeting in a delightful location, and it augers well for the 2008 meeting. A particularly interesting ISCEV session, with some new (as well as old) faces and a strong representation of paediatric work can be viewed on the conference website;

http://www.ever.be/view\_session.php?ses\_id=736 Take a look and take a trip to Slovenia!



Prof Colin Barber PhD Vice-President for Europe & Africa

### Asia and Oceania

Asia: The 55th annual Meeting of the Japanese Society for Clinical Electrophysiology of Vision (JSCEV) was held at Nagoya on 3 and 4 November organized by Professor Uji, current Chairman of JSCEV and Chairman of the Department of Ophthalmology in Mie University. Although the time interval from the previous meeting was shorter than a regular year, more than two hundred participants attended and had the pleasure of hearing papers and symposium. The 56th annual meeting will be held at Tokyo on 5-6 September organized by Professor Yamamoto. The 56th JSCEV meeting will be a combined meeting with the 44th annual meeting of the Japanese Society of Ophthalmological Optics.

The 3rd annual meeting of the Korean Society for Clinical Electrophysiology of Vision (KSCEV) was held on 20 October 2007 at Korea University. Twelve topics and six free papers were presented at the symposium and Drs. Masayuki Horiguchi and Atsushi Mizota were invited as guest lecturers. More than one hundred doctors and technicians registered and the symposium was performed successfully. The 4th annual meeting of KSCEV will be held on 18 October this year at Seoul organized by Dr. Kwon, Oh Woong and Dr. Ohn, Young-Hoon. The theme of the 4th meeting will be glaucoma and ocular electrophysiology.

**Oceania**: The 12th Bi-annual Scientific Meeting and Educators' Meeting in Auckland will be held at the the University of Auckland Department of Optometry and Vision Science on 28 - 30 September 2008. Four half-day sessions will be devoted to research presentations, and one session dedicated to the Educators' Meeting. There will be an optional additional lecture session with invited speakers on the topic of "Basic Science in Clinical Practice".

### Email scientificmeeting@auckland.ac.nz

The Australian Ophthalmic and Vision Sciences Meeting is Australasia's 'mini ARVO'. It is held every year on the first weekend in December. Last year there was a strong representation ofrom the topic of visual electrophysiology with 12 papers from four states. Next year the meeting will be in Canberra 3-5 Nov 2008. Access details through

### http://www.ranzco.edu/ which links to:

http://www.rsbs.anu.edu.au/AOVSM/

The most important news is that the 48th ISCEV symposium in 2010 which will be run by Enid Chelva and John De Roach and their team in Perth Western Australia. Block out 7-11 November 2010 in your diary and see further details elsewhere in this Newsletter.

Atsushi Mizota, MD Vice-President for Asia & Oceania

## The Eberhard Dodt Memorial Award 2007

The Eberhard Dodt Memorial honours an outstanding young scientist who presents at the ISCEV Annual International Symposium. At the XLV Symposium, in Hyderabad, there was a strong contingent of young scientists, including an unprecedented number from Asia. In presenting the award our president read the speech prepared by Mrs. Elke Dodt, widow of Prof. Dodt and founder of the award:

#### Honoured Prize-winner, Ladies and Gentlemen, Dear Friends,

It has always been a pleasure as well as an honour for me, in the context of the ISCEV Symposium, to present to a young scientist the Research Prize that bears the name of my late husband. Young scientists who work in the field of the Clinical Electrophysiology of Vision should be encouraged and stimulated from our knowledge in this branch of medicine, for the benefit of suffering people. The prize is awarded this year for the twelfth time.

On this occasion it is not possible for me to confer the prize in person. But I must assure you that it was only with great reluctance that I decided that I could not come to Hyderabad. The timing of the Congress clashes with a major family celebration, so I hope that you will understand my decision. Professor Bach has very kindly agreed to convey my greetings to you all.

"More research – better sight" is the motto of the "Neuro-Ophthalmological Society" which also administers the Eberhard Dodt Foundation. An Italian saying, that probably derives from Tuscany, is very appropriate to this: "Chi sa ha dieci occhi, chi non sa è cieco affatto", "He who knows has ten eyes, he who knows nothing is completely blind". It is doubly appropriated, since it shows us that the extension of our knowledge makes us "see", and, specifically, the knowledge gained from research allows the possibility to offer healing, and outstanding research results can alleviate or even cure eye disease.

In this spirit from Germany I congratulate this year's prize-winner and wish her, most warmly, further success in her scientific work.

August 2007, Elke Dodt

Congratulations to the prize-winner, Maja Sustar, from Eye Clinic of Ljubljana University, Slovenia. Her award-winning presentation was entitled "The photopic negative response of the flash ERG to broadband and monochromatic stimuli". Dr. Sustar earned her PhD in biology with work on a rhodopsin degeneration model in Drosophila and currently works in the electrodiagnostic unit in Ljubljana with our long-standing ISCEV member, Jelka Brecelj. She has already published a number of papers, has a young daughter and, in addition, she scores an impressive record in sport climbing competitions.

The Adjudication Panel also selected three young presenters and commended them for the especially high quality of their presentations: Dr Kaoru Fujinam from Tokyo for "A case of Oguchi's disease without night blindness", Dr Timothy Lai from Hong Kong for "Genotypic and phenotypic correlation of Bietti's crystalline dystrophy in Chinese patients with CYP4V2 mutation" and Dr Bijoy K Nair from Chennai for "Regional retinal asymmetry of multifocal electroretinogram responses". Dr Nair was also recognized as the best young presenter from the host country with a book prize.

The Adjudication Panel thanks Dr Christina Gerth for her masterful organisation of the panel and our team of expert evaluators this year in her new role of Convener of the Adjudication Panel.



## The Second Emiko Adachi Award Lecture: Prof Eberhart Zrenner



"Restoring retinal function: new potentials" was the title of a tour de force lecture from Prof Eberhart Zrenner on the German retinal implant programme, in which he plays a major role. Following a review of the various different approaches being taken by groups around the world, he led us gently through the multitude of steps taken by the German groups involved since work began in 1995. Demonstrating an amazing grasp of all the different disciplines involved, he shared with us the excitement – and the disappointments – as the work progressed, culminating in a clinical study of seven patients that clearly demonstrated the feasibility of producing visual perception from a microphotodiode array implanted directly in the retina. He even managed to convey the feelings of the patients about being part of this grand experiment and the hope – though it is early days still – that the project has brought to them.

Eberhart has been an important part of ISCEV for as long as I can remember. Looking back through the dusty archives when I was Secretary-General, I came across stern messages from him as Treasurer, followed by friendly, smudgy, hand copied Newsletters while he was Secretary for Europe and Secretary-General, and then the ground-breaking Newsletters in which, as President, he announced his aims for our society. This was a new concept for the ISCEV Newsletter – to look forward as well as back – and he led us into a new era of greater visibility on the world stage through achievement of those aims.

Of course, the world was his stage during the time he calls the "years of the bird", and despite being tethered with responsibilities during his "years of the donkey", his influence remained as widely felt. And, just like Emiko Adachi, his commitment to ISCEV has never faltered, despite all the other important demands on his time. He epitomises the spirit of the Emiko Adachi Award.

Colin Barber, PhD Vice-President for Europe and Africa

# In Memorium: Lorrin Riggs (1912 - 2007)



Lorrin Riggs made a great contribution to vision research and was a key figure in retinal electrophysiological research and in ISCEV history. Prof. Riggs was a founding member of the International Society for Clinical Electroretinography (ISCERG) in 1958 along with Burian, Dieterle, Franceschetti, Henkes, Karpe and Straub. (The name of this society was changed to ISCEV in 1977 to acknowledge a broadened scope to other physiological techniques, most notably the VEP.) Lorrin Riggs began his research career as

a PhD student of Clarence Graham in the Psychology Department at Clark University in Worchester Massachusetts. In addition to his interests in visual perception and psychophysics, Professor Graham had worked with Professors Granit and Hartline on electrical recordings from the retina. While at Clark University, Graham and Riggs explored the spectral sensitivity of rat and pigeon retinae using a string galvanometer and dc amplifiers to record the ERG (J Gen Psychol 1935; 12:279-95). Riggs continued his collaboration with Graham, joining him on the faculty of the Psychology Department at Brown University in 1938, where Riggs spent the remainder of his career. In 1941, Professor Riggs published the first paper describing the use of a contact lens electrode to record the ERG (Proc. Soc Exp. Biol. N.Y. 48, 204-207), an innovation that led to the first clinical applications of electroretinography (cf, Karpe G, 1945, The basis of clinical electroretinography. Acta Ophthal, Suppl. 24, I-118). At the ISCERG meeting in Chicago in 1964, Professor Riggs was the first to describe the pattern ERG. This work was later published in Science (Riggs LA, Johnson EP, Schick AML, 1964, Electrical responses of the human eye to moving stimulus patterns. Science; 144:567) and in the proceedings of the ISCERG symposium (Johnson EP, Riggs LA, Schick AML, 1966, Photopic retinal potentials evoked by phase alteration of a barred pattern. In Clinical Electroretinography, Proc. 3rd Int. Symp, 1964, Burian HM & Jacobson JH (eds) pp. 75-91, Pergamon Press Oxford).

Lorrin Riggs contributions to vision science extend well beyond visual electrophysiology. He published in many areas of vision science including color vision, stereopsis, vernier acuity, saccadic suppression and ocular motility. With Floyd Ratliff, he was the first to describe micro-saccades (Ratliff F, Riggs LA. Involuntary motions of the eye during monocular fixation. J Exp Psychol. 1950;40:687-701) and with Ratliff and Cornsweet, was the first to describe the fading of stabilized retinal images (Riggs LA, Ratliff F, Cornsweet JC, Cornsweet TN. The disappearance of steadily fixated visual test objects. J Opt Soc Am. 1953;43:495-501). In addition to Ratliff and Cornsweet, Professor Riggs trained many post doctorate and graduate students while at Brown including, John Armington, Bob Boynton, Velma Dobson, Jim Gordon, Kay Fite, Don Hood, John Krauskof, Walter Makous, Bob Sekular, Sam Sokol, Keith White. and Billy Wooten.

Lorrin Riggs was a pioneer in the field of visual electrophysiology and deserves much credit for shaping the field as it exists today.

Mitchell Brigell, PhD Vice-President for the Americas

# **Report from the ISCEV online discussion group: CEVnet**

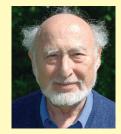
In January 2001, ISCEV went on-line with CEVnet, a list-server based email discussion group dedicated to clinical electrophysiology of vision. Patterned after a similar discussion group dedicated to paediatric ophthalmology, CEVnet was intended to provide an informal information exchange on topics of interest to the ISCEV membership. In the seven years since, we have experienced a modest, but steady stream of interest, with threads (chains of emails on a single topic) evoking discussions of challenging clinical cases, questions of instrumentation and technique, "Authors' Queries," proceedings of regional meetings, as well as mundane matters such as billing questions and announcements of general interest.

Since its inception, the list has been hosted on a server at Mount Sinai School of Medicine in New York – at no charge to participants or to ISCEV.

There have been some changes in the intervening seven years. Broadband Internet connections have largely replaced slow dial-up service for many subscribers, potentially encouraging exchange of images and waveforms. Spam has become an unfortunate fact of life. (Our List-Server at Mount Sinai does an excellent job of catching almost all of it before it is distributed to the List. As Moderator, I check the "spam filter" regularly to make certain that any legitimate messages are not inadvertently discarded.) CEVnet was initially restricted to ISCEV members. In recent years, we have admitted non-members to the List on request – perhaps as a first step to membership in ISCEV.

A few reminders about using CEVnet:

**Member News** 



### Prof Arden Honorary Fellow of the Royal College of Ophthalmologists

Prof Geoffrey Arden PhD MD, was awarded an honorary fellowship of the Royal College of Ophthalmologists in recognition of his illustrious career in vision research. Prof Arden has been an outstanding ISCEV member for over 40

- 1. Please help keep the address list current: if you change your email address, let me know by sending an email to the address below. Be sure to mention both the old email address and the new one, so I can delete the old one and prevent annoying "bounces".
- 2. CEVnet is a "closed" list the system will not post messages from an unknown email address. [See item #1 above!]
- 3. There is no objection to having more than one email address on the List, but messages will be sent to all active addresses.
- 4. If you wish to discontinue your participation in CEVnet, just send me an email. You can change your mind any time.
- 5. Even in this era of broadband connections and large allowances for message size and storage, it is still courteous to keep your messages brief. Compressed image formats are adequate for list discussions, and help avoid "bounces" when in-box quotas are exceeded.
- 6. I am happy to place your image files on a server and provide you with active links to include in your message this will allow you to provide images for discussion without sending very large messages to the entire List. Just email me privately.
- Remember CEVnet gives you instant access to the worldwide clinical electrophysiology of vision community – a matchless resource. Share your questions, cases and thoughts. We all enjoy them.

Scott E. Brodie, MD, PhD Moderator, CEVnet scott.brodie@mssm.edu

years including a Board member (1989-1994) and honorary member (since 1994). From his seminal work in the 1950s, his name is attached to the 'Arden Ratio' the unrivalled method for human EOG measurement. Prof Arden has mentored an impressive line-up of scientists and clinicians and contributed a remarkable array of books and manuscripts on nearly every aspect of clinical electrophysiology of vision. Congratulations Geoff.

> Richard Smith, MD ISCEV Member

# Minutes of the 2007 ISCEV Membership Meeting

At the XLIV ISCEV International Symposium, Hyderabad, India, 28 August, 2007.

- Opening Welcome & Report of the President The President opened the meeting and welcomed ISCEV members. He thanked Don Hood, Vice President for the Americas, will finish his term in 2007 and welcomed Mineo Kondo and Carol Westall, our new Board Members at large.
- 2 Minutes of the 2006 ISCEV Membership Meeting
   2.1 The minutes of the 2006 ISCEV Membership Meeting as printed in the ISCEV 2007 Newsletter (NL) were adopted as a true record with a minor syntax correction.
- **2.2** There were no matters arising from the minutes.
- 3 Report from the 2007 Symposium Organiser: Dr Subhadra Jalali reported that the symposium had 188 delegates and 237 participants including trade and accompanying people. There were 94 scientific presentations including 55 oral, 3 keynote addresses, and 39 posters. Delegates came from 24 countries around the world.
- 4 ISCEV Officers' Updates and discussion of the reports printed in the 2006 NL
   4.1 Approval of the Treasurer's Report (2007 NL) the report was unanimously exonerated by a vote of the members. The issue of the funding the non-profit status was deferred to item 5.
  - 4.2 Matters arising from the reports of the other ISCEV officers in the 2007 NL
    4.2.1 The Director of Education thanked the lecturers for the successful ISCEV Teaching Course at the LV Pradsad Eye Institute (24-24 August), which attracted 70 participants. He further updated his written report with information about the recent ISCEV approved course in Padova Italy. Anne Fulton reported that the Paediatrics committee requested that paediatric topics should have greater coverage in the ISCEV course. Graham Holder reported that he has increased this topic in recent years and this year there was a full lecture in paediatrics. Anne Fulton asked that the course curriculum be made available to the Paediatric committee.
  - 4.2.2 Director of Standards: Mitch Brigell outlined the progress towards establishing a range of specific protocols suitable for clinical trials. Prof Zrenner chaired a breakfast meeting during this symposium. He has now formed a committee and will set up a template for extended protocols such as "Scotopic a-wave luminance-response functions (Naka-Rushton), S-cone and L-cone protocols etc. All extended protocols will be presented to the members online for review and, if subsequently adopted as 'ISCEV approved protocols', they will be available for applications in clinical trials and inter-laboratory comparisons. Both the VEP and ERG standards are now due for revision.
- 5 Highlights of the ISCEV Board of Directors Meeting In view of our healthy finances (and the concomitant risk to our non-profit tax status), the Board approved measures to enhance our activities:

1) We will sponsor an ISCEV keynote lecturer at our international symposia (In the past invited speakers have required external sponsors or have been funded by symposium fees.)

2) The Board approved in principal ISCEV grants for Extended Laboratory Visits to support educational and research collaboration. Guidelines for application and awarding will be prepared so that the programme can begin in 2008.

3) Additional ISCEV travel grants may be awarded some years at the discretion of the ISCEV Awards committee. The members present formally exonerated the ISCEV Board of Directors by a show of hands (unanimous)

- Voting ISCEV Board of Directors & mfERG Standard:
- 6.1 President of ISCEV: There were no further nominations from the floor. The Prof Michael Bach was re-elected to his second term (unanimously).
- 6.2 Vice President for the Americas: From the slate of nominees, Mitchell Brigell and Pierre Lachapelle were selected by the members present as the two candidates to go forward to the mail ballot.
- **6.3** Member-at-Large: There were no further nominations from the floor. The Dr A Patrizia Tormene was re-elected to her second term (unanimously).
- 6.4 Honorary members: A Board nomination of endorsed Prof Yozo Miyake was presented by Dr Mineo Kondo. The members present unanimously elected Prof Miyake as a new honorary member of ISCEV.
- 6.5 The mfERG update (available since 1 August for review) was presented for discussion. A lively discussion ensued regarding the balance between setting specific standards giving comparable results and the need to be inclusive of laboratories with a range of procedures and equipment. Although there was considerable support for acceptance of the mfERG draft as a new ISCEV standard, less than a majority of members present voted for this option. A second vote to adopt the draft as an updated mfERG guideline passed with a strong majority.
- 7 Future ISCEV Symposia

6

- 7.1 Prof J Vernon Odom updated the members on plans for the XLV1 ISCEV Symposium Morgantown 10-15 July 2008. "Correlation of Structure and Function" and "Electrophysiological Assessment of Low Vision"
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- 7.3 XLVIII ISCEV Symposium (2010, Asia/Oceania): Very attractive invitations were presented from Perth, Australia – Enid Chelva, Chongqing, China – Zheng Qin Yin, Singapore – Audrey Chia and Seoul, South Korea – Young-Hoon Ohn. The members presented voted by secret ballot for Perth and Chongqing to go forward to the postal ballot by all members.
- 7.4 XLIX Symposium (2011). The SG has been notified of the intention to invite ISCEV to Toronto (Carol Westall) and to a cruise from New York to Montreal (Mitchell Brigell).
- 7.5 An invitation to Valencia Spain in 2012 by Concha Solen was announced.

Without other business the meeting closed at 18:36

# **Recollections of a Symposium**



The forty fifth annual symposium of ISCEV was held in typical colourful and festive Indian spirits at the Hotel Taj Krishna in the Banjara Hills of Hyderabad, the city of Pearls in South India. A total of 237 participants interacted during the five days of the symposium. There were 188 scientific delegates from 24 Countries and twenty five accompanying persons. The symposium was preceded by a fully subscribed ISCEV course and a highly charged clinical cases session. The standard of presentation was high and comprised of 55 Oral presentations, 3 keynote addresses, 39 posters and one award lecture. A new introduction to the ISCEV this year was the ISCEV Quiz in which we saw keen participation of 76 delegates. The Quiz format was appreciated and many teachers asked for the quiz to administer it to their students back home! Congratulations to Tony Robson who won the prize for the highest score.



The social programme covered a variety of insights into India and Indian way of life. It included visits to religious places covering Hinduism, Christianity, Sikhism, Islam, Buddhism and Jainism. Delegates observed bangle making, Mehndi and Palmistry sessions followed by folk and classical dance shows in the evenings and sampled famous Indian cuisine from different Indian regions each night! Delegates also visited the famous Indian film making at Ramoji Film City, went back 700 years in History at the Golconda Fort and reveled at Sagar Mahal Palace where the night was full of splashing colours of Holi and dancing to folk Dandiya. Accompanying delegates visited the Lion Safari and Salarjung Museum/ Charminar areas where shopping for colourful textiles and pearls kept them busy.



Prasads IMAX provided complimentary Harry Potter show tickets and more than 50 delegates signed up, had a whirlwind tour across the Lake necklace road for dinner and watched the movie in fun together. ISCEV spirit was at its' best when the movie buffs experienced a great Indian monsoon adventure as all 50 walked 100 yards, singing in the rain, to the awaiting buses at 1.00 a.m in the morning!



The ISCEV Olympics included the vigorous Indian game of Kho-Kho, a highpitched Conch blowing competition and ended with a Sari (Ladies) and Dhoti (gentlemen) wearing competition during the Banquet held in the Grand Ballroom of the Taj Krishna. The trophy was won by Europe while India were runners-up.



As per previous ISCEV tradition, all the guests were presented with hand made Jute (natural fibre) bags with local Kalamkari work and a souvenir that is best described as 'Soft Silks and lasting fragrance with Love and Romance from India' including a Kashmiri Silk Scarf, Hyderabadi Attar (perfume) and Photo framed monument of Love, the Taj Mahal!



On a serious note, the first ever ISCEV symposium in the large Indian subcontinent has achieved a major success by bringing latest electrophysiology techniques to this region and kindled everlasting interest in this 'new field' for our clinicians and students. I thank one and all who participated, made this such a great success and fulfilled my dream of welcoming you all to Incredible India! Looking forwards to more already!

> Subhadra Jalali, MS Chairperson ISCEV XLV Symposium Organising and Programme Committee

# **Upcoming Symposia**



### 47<sup>th</sup> ISCEV INTERNATIONAL SYMPOSIUM, PADOVA-ABANO TERME Monday 6 July-Friday 10 July 2009 Venue: Conference Center Pietro d'Abano Largo Marconi 16 Abano Terme (PD)

Padova is a beautiful town in the North East of Italy with a long history stretching back long before the Romans came.

The University of Padova was founded in 1222: Galileo Galilei taught here; many great scientists and doctors came from all over Europe to study. Padova is famous for the Basilica of St Anthony, the frescoes by Giotto, Altichiero, Menabuoi, Mantegna, Donatello and Titian and for its beautiful squares and medieval buildings.

Padova is 12 km from where the Symposium will be held: Abano Terme.

This small town lies at the foot of the Euganean hills, it was already a famous spa town in Roman time; today, it is the largest spa town in the world. In Abano Terme there are many hotels of different classes, suitable for all the requests.

#### Main Topics:

- Non standard stimuli: their contribution to modern electrophysiology
- New therapies-from photoreceptor to glaucoma

#### Symposium highlights:

- Scientific Sessions; Oral and poster presentations on all aspects of clinical Electrophysiology of Vision
- Invited Lectures
- Clinical Cases Session
- ISCEV Course one and half days before the Symposium
- Rich social program for participants and accompanying persons to scout the artistic and natural beauties of the region.
- Rich food to enjoy and remember for ever your staying in Italy.

#### Transportation:

Venice, Marco Polo, is the closest airport.

Airbus and Public bus services connect the airport with Abano Terme.

#### Weather:

July temperatures are 22°-28°C with rare thunder-storms but the thermometer can reach 32°-35°C.

For all the detailed information see at the Symposium site: www.iscev2009.org

I look forward to seeing you at an excellent scientific Symposium in a charming Italian atmosphere.

Scientific Secretariat Alma Patrizia Tormene e-mail: alma.patrizia.tormene@unipd.it Conference Secretariat, Meet and Work Piazza del Sole e della Pace 5 -35031 Abano Terme (PD) e-mail: meet@meetandwork.com Tel: -39 049 8601818- Fax: +39 049 8602389

Other information:

http://www.turismopadova.it/ http://www.abanomontegrotto.it/ http://www.cappelladegliscrovegni.it/ http://www.basilicadelsanto.org/











# **Upcoming Symposia**

An invitation to Perth, Western Australia, for the XLVIII ISCEV International Symposium - 2010



Proposed dates: Sunday 7 to Thursday 11 November 2010

We are delighted to have the opportunity to invite you to Perth, Western Australia's modern vibrant riverside capital. Founded in 1829, this city of 1.5 million people flanks the broad reaches of the beautiful Swan River and is bordered by the Indian Ocean to the west and the picturesque Darling Range to the east. The symposium is timed to enjoy the best of our Mediterranean Spring, amidst the beautiful, diverse and unique wild flowers, when maximum temperatures reach a pleasant 26°C. Basking in sunshine, Perth and its historic port city of Fremantle invite you out onto the streets, into the cafes and down to the water's edge.

**ISCEV 2010:** The symposium will be held at the Burswood Entertainment Complex http://www.burswood.com.au/ on the banks of the glistening Swan River, a world class conference venue located just 5 minutes drive from the city centre or 10 minutes by train or bus.



Accommodation: The Burswood offers four and five-star luxury accommodation options, encompassing on site golf course, tennis courts, day spa, seven acclaimed restaurants and six bars. Alternate hotel/motel/budget accommodation is located nearby.

Access: Perth International Airport is 15 minutes drive from the symposium venue. It is serviced by most major airlines with direct flights from Dubai, Hong Kong, Johannesburg, Singapore and Tokyo for travellers from Europe/Africa/Asia, while Sydney is our eastern gateway from the Americas. Shuttle buses will be arranged for hotel transfers.



**Hospitality and Social programme:** We would like to share with you our multicultural blend of fine dining, beautiful beaches, wide open spaces and friendly outdoor lifestyle. Our half-day tour plans to showcase the beautiful wine growing region of the Swan Valley, taking in an aboriginal cultural centre, Australian wildlife park, wine, chocolate and cheese tastings, Australian bushland and to finish the evening, bush dancing beneath the Southern Cross. The Historic Government House will provide a wonderful setting for our gala dinner. The accompanying persons program offers a range of both exciting and relaxing activities, including a day trip to Rottnest Island, exploring Fremantle and a Perth city tour for shopping and sight seeing. We plan to have a lazy day either at the beach, golfing, sailing, cycling, playing tennis, enjoying the opera or just doing what you like.

**Other Information:** It would be a pity to come to Perth without experiencing further the unique natural beauty of our land, with endless options for pre-and post-conference activities. You can visit the famous wine-growing region of Margaret River and nearby giant Karri forests, play with whale sharks and dolphins, explore spectacular coral reefs, gorges, caves and other natural wonders...

http://www.experienceperth.com/ http://www.australiascoralcoast.com/ http://www.australiassouthwest.com/ http://www.australiasgoldenoutback.com/ http://www.australiasnorthwest.org.au/

> Enid Chelva and The Visual Electrophysiology Team of Sir Charles Gairdner Hospital